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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,852	12/08/2000	Joseph S. Luongo	08800/00008	2551

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WHITEFORD, TAYLOR & PRESTON, LLP  
ATTN: GREGORY M STONE  
SEVEN SAINT PAUL STREET  
BALTIMORE, MD 21202-1626

EXAMINER

RAJGURU, UMAKANT K

ART UNIT	PAPER NUMBER
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1711

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DATE MAILED: 06/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/732,852

Applicant(s)

LUONGO, JOSEPH S.

Examiner

Umakant K. Rajguru

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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1. An amendment (Paper No. 6) has been filed on December 9, 2002
2. Applicant's election without traverse of Group I, claims 1-13 and species A is noted.
3. Claims 1-13 are being examined.
4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1, 3-6, 8 and 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite in reciting "selected from the group consisting essentially of". Proper wording is "consisting of".

Similar is the case with claims 6, 11, 12 and 13.

Claim 1 is further indefinite in reciting "a vinyl acetate emulsion comprising polyvinyl acetate particles". Is it an emulsion of vinyl acetate or polyvinyl acetate?

Claim 1 is also indefinite in reciting "10% to 25% solution of polyvinyl alcohol to water". Is it a solution in water or a ratio of polyvinyl alcohol to water? It is not clear if the percent is based on weight or volume.

Additionally, it is not clear in which solution are acrylic particles and polyurethane particles suspended. Is it a solution in water or in some other liquid?

Abbreviation "VOC" is not permitted in a claim.

Claim 3 is indefinite, like claim, 1, in reciting "a solution comprising ethoxilated alcohol surfactant to water." Word ethoxilated" should be "ethoxylated"

Similar remarks apply to claims 4, 5, 6 and 8.

Claim 12 is indefinite in failing to specify which "borate" is encompassed.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards et al (USP 5,155,959).

Richards discloses gypsum-building product such as a door. The core of door contains particles of expanded perlite (col. 3, line 26). The composition comprises an aqueous dispersion of solids including calcium sulfate, cellulose fiber and a binder polymer (col. 4, lines 33-43). Various polymers are suggested, two of which are poly (vinyl acetate) and polyacryl ate (col. 8, lines 13-26).

Richards does not mention that the aqueous emulsion of poly (vinyl acetate) contains some polyvinyl alcohol as claimed in instant claim 1. It is reasonable, nonetheless, to assume that some polyvinyl alcohol is present in the water due to the tendency of poly (vinyl acetate) to undergo alcoholysis .

It would have been therefore obvious to arrive at claimed invention by following teachings of Richards.

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8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Richards et al (USP 5,155,959).

Disclosure of Richards proves that claims 1 and 4 lack novelty.

10. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards et al (USP 5,155,959) as applied to claim 1 above, and further in view of Yu et al (USP 6,342,289) and Plunguian et al (USP 3,989,534).

Richards does not mention sodium trimetaphosphate (of claim 2) and surfactant (of claim 3).

Yu discloses a gypsum containing product in which sodium trimetaphosphate is used (col. 4, lines 15-17).

Hence it would have been obvious to add the sodium trimetaphosphate of a Yu to the composition of Richards in order to improve sag resistance.

Plunguian discloses foamed compositions and products made therefrom. The compositions comprise a synthetic surfactant (col. 1, lines 41-61). One suitable surfactant is octyl phenoxy polyethoxy ethanol (col. 2, lines 55).

It would therefore be obvious to add surfactant of Plunguian to the composition of Richards to enhance dispersion and wetting of solid particles.

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11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richards et al (USP 5,155,959) in view of Norukawa et al (USP 4,148,781).

Richards does not mention polyurethane emulsion.

Narukawa discloses sheet materials made out of a composition comprising glue, starch dextrin (col. 2, line 32), polyurethane (col. 3 line 53) borax, boric acid et. (col. 3, line 21).

It would therefore be obvious to use polyurethane emulsion of Narukawa as an alternate or additional binder in the composition of Richards for enhancing mechanical properties.

12. Claims 6 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards et al (USP 5,155,959) in view of Narukawa et al (USP 4,148,781).

Richards does not mention starch, and boron source.

Narukawa discloses starch (in col. 2, lines 32) and boric acid (in col. 3, line 21).

It would have been obvious to add starch, and boric acid to composition of Richards to increase water resistance and strength due to crosslinking by boric acid.

13. Claims 7, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards et al (USP 5,155,959) in view of Narukawa et al (USP 4,148,781) as applied to claim 6 above, and further in view of Yu et al (USP 6,342,284), Plungian et al (USP 3,989,534) and Wieczorek, Jr. et al (USP 5,519,072).

Richards together with Narukawa fail to teach sodium trimelaphosphate (of claim 7), surfactant (of claims 8) and boric (of claims 13).

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Wieczorek discloses aqueous adhesive compositions which are similar to that of Richards. Wieczorek uses borax i.e. sodium borate decahydrate, sodium tetraborate decahydrate etc. (col. 4, lines 65-66).

It would have been obvious to add to the composition of Richards (a) sodium trimelaphosphate of Yu to improve sag resistance, (b) surfactant of Plungian to enhance dispersion and wetting and (c) borate of Wieczorek to enhance strength by crosslinking.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to U.K. Rajguru whose telephone number is 703-308-3224. The examiner can normally be reached on Monday-Friday 9:30 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

  
U. K. Rajguru/dh  
April 11, 2003

James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700